

March 9, 2004 W-P Project No. 7115H

Mr. Paul Currier, P.E. Watershed Management Bureau Administrator New Hampshire Department of Environmental Services 6 Hazen Drive P.O. Box 95 Concord, NH 03302-0095

Water Quality Standards Advisory Committee Subject:

Dear Mr. Currier:

Wright-Pierce represents numerous clients, including the Town of Jaffrey, who will be impacted by revisions to the State Water Quality Standards. We appreciate the opportunity to participate on the Water Quality Standards Advisory Committee (WQSAC) in this endeavor, and we will continue to work with the Committee.

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We applaud the Committee's efforts to provide additional flexibility to allow the use dynamic or alternative steady state models to calculate dilution factors and resulting "flow based permit limits" for wastewater treatment facility discharge permits. We feel the current approach of relying solely on steady state modeling based on 7Q10 river flow and design year WWTF discharge flow to establish discharge permit limits can be overly conservative, and can easily result in the need for cost-prohibitive solutions. Based on the most current DES proposal (dated 2/2/2004), it appears more likely that dynamic modeling methods will be allowed in the future. Based on discussion at the most recent WQSAC meeting (2/9/2004), we understand the current intent of the DES would be to also allow permit limits based on alternative steady state modeling methods that rely upon such strategies as river trigger flows, tiered limits based on river flow, and differing seasonal discharge flow rates. The acceptance of these alternative steady state modeling methods is a relatively recent development at the WQSAC proceedings.

To date, the discussion of flow based permit limits has been limited to toxic pollutants. During WQSAC proceedings, the DES previously indicated that it would be impractical and too complicated to allow the use of dynamic modeling for determination of low flow conditions and dilution factors for use in dissolved oxygen models, which are used to establish BOD, ammonia nitrogen and phosphorus discharge limits. While this may be the case for a true dynamic model, it is not necessarily true for alternative steady state modeling methods as described in the previous paragraph. These alternative steady state modeling methods, including trigger flows, tiered limits and differing seasonal discharge flow rates, have been used in other New England states as the basis for BOD, phosphorus, and ammonia nitrogen discharge limits, while still fully

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Mr. Paul Currier, P.E. March 9, 2004 Page 2

protecting state water quality criteria requirements. On this basis, we request that DES not restrict the use of flow based permit limits to toxic pollutants only, but allow their use in determining permit limits for BOD, ammonia nitrogen, and phosphorus as well.

DES previously drafted proposed revisions to Section Env-Ws 1705.02 to reflect the changes being considered by the WQSAC. It should be noted that Section Env-Ws 1705.02 is currently applicable to establishing all discharge permit limits including those parameters that impact dissolved oxygen criteria. If this section is revised to only apply to toxic pollutants, the regulations would no longer clearly define what "low flow condition" should be used for running dissolved oxygen models and establishing discharge limits for BOD, phosphorus and ammonia nitrogen.

Enclosed for your reference is an October 29, 2003 letter from Jaffrey Town Manager Jonathan Sistare to Joy Hilton of EPA. Attached to that letter are previous letters sent to you, George Berlandi, and Sharon Nall of DES, all of which referred to the current and possible alternative bases for the determination of permit limits.

In summary, we request that DES approve the use of flow based permit limit methodologies in establishing discharge limits for BOD, phosphorus and ammonia nitrogen, as well as for toxics as is now contemplated. This issue is extremely important to the Town of Jaffrey. We suspect that, as the State of New Hampshire completes more TMDL studies in the future, this issue may also be very important to many other municipalities in the state. We look forward to discussing this issue in further detail at the next WQSAC meeting on March 22, 2004. If you have any questions, please feel free to contact us.

Very truly yours,

WRIGHT-PIERCE

Neil P. Cheseldine, P.E

Project Engineer

Victor S. Krea, P.E

Project Manager

cc Mr. Randall Heglin, Town of Jaffrey

Mr. Jonathan Sistare, Town of Jaffrey

Mr. Douglas Starr, Town of Jaffrey

Ms. Joy Hilton, USEPA

Ms. Sharon Nall, NHDES

Mr. George Berlandi, NHDES

Mr. Franz Vail, NHDES